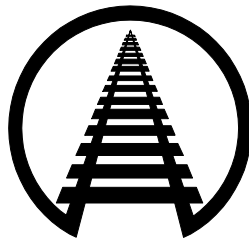


STATEMENT OF
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BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON HIGHWAYS AND TRANSIT

HEARING ON THE SECTION 130 PROGRAM
AND GRADE CROSSING SAFETY

JUNE 27, 2002

On behalf of the members of the Association of American Railroads, I am grateful for the opportunity to discuss the important issue of grade crossing safety — and the Section 130 program in particular.

Overview of Rail Safety

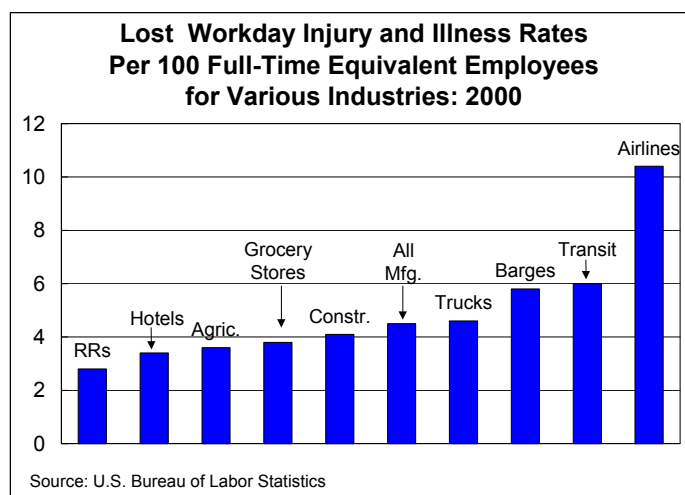
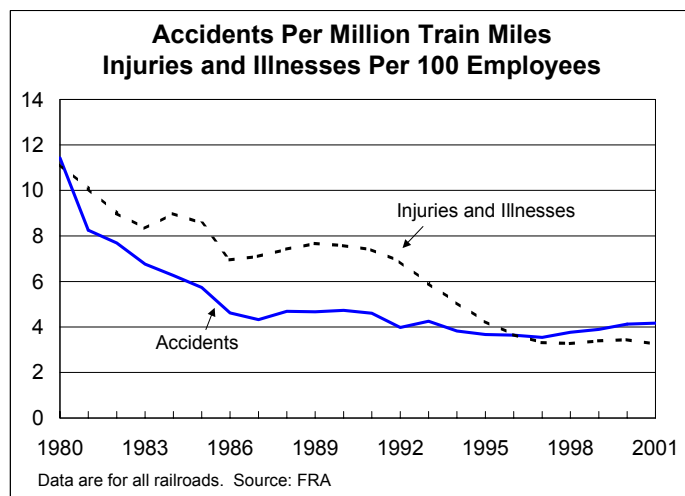
Nothing is more important to our nation's freight railroads than the safety of their employees, customers, and the communities they serve, as demonstrated by the scope and intensity of the industry's safety efforts. These efforts have paid off, as railroads have achieved tremendous improvement

in safety. According to Federal Railroad Administration (FRA) statistics, the rail industry has reduced its overall train accident rate 63 percent from 1980 to 2001, including 12 percent since 1990.

The rate of employee casualties has been reduced 71 percent since 1980 and 57 percent since 1990, and in 2001 was the lowest rate on record.

Today, according to data from the Bureau of Labor Statistics, railroads have lower employee injury rates than other modes of transportation

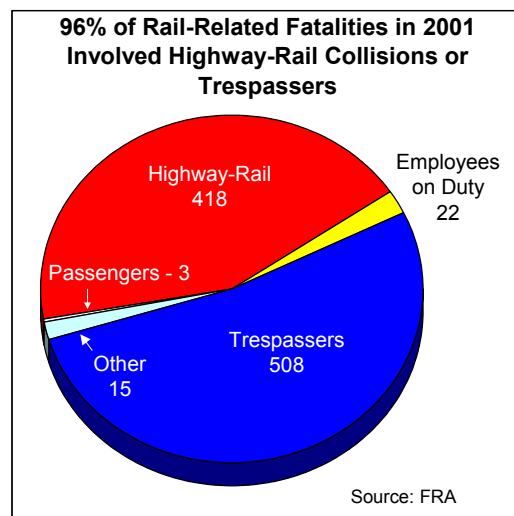
and, indeed, most other major industry groups, including agriculture, construction, and



manufacturing. These improvements in rail safety have come about precisely because railroads recognize their responsibilities regarding safety and have devoted enormous resources to its advancement.

Railroads are also safer than trucks. Rail freight transportation incurs an estimated one-fourth of the fatalities that intercity motor carriers do per billion ton-miles of freight moved. Motor carriers have an employee injury rate that is 64 percent higher than railroads. Moreover, there is a far greater chance of hazardous material release when hazmat is shipped by truck than by rail: freight railroad hazmat incidents are less than 8 percent those of trucks, despite having roughly equal hazmat ton-mileage, according to data from the U.S. DOT's Research and Special Programs Administration.

Railroads, though, are not satisfied with the status quo, and will continue their efforts to address rail-related safety problems. The most critical rail-related safety problems are collisions at highway-rail grade crossings and incidents involving trespassers on railroad rights-of-way. In 2001, these two categories accounted for 96 percent of rail-related fatalities. Although these incidents generally arise from factors that are largely outside of railroad control, and even though highway-rail crossing warning devices are properly considered motor vehicle warning devices there for the benefit of motorists, not trains, railroads are committed to efforts aimed at sharply reducing the frequency of crossing and trespasser accidents.



Background on Highway-Rail Crossings

A highway-rail crossing usually refers to the general area where a railway and roadway intersect. A crossing is either “public” (*i.e.*, the roadway is a public road) or “private” (*i.e.*, the roadway is a private road), and either “at-grade” (the railroad and roadway join at the same level) or “grade-separated” (the railroad and roadway cross at different levels). As of December 31, 2000, there were 256,241 at-grade highway-rail crossings in the United States, including 155,370 (60.6 percent of the total) public vehicle crossings and 98,918 (38.6 percent) private vehicle crossings.¹ These crossings are generally distributed nationally in proportion to the rail mileage within each state.

Essentially all problems at highway-rail crossings occur at grade crossings. Moreover, because motor vehicle traffic volume is generally much higher at public crossings than at private crossings and because there are far more public crossings than private crossings, a large majority of problems associated with highway-rail crossings occur at public crossings. Thus, most attention to highway-rail crossing problems is directed to those associated with motor vehicles at public, at-grade crossings.

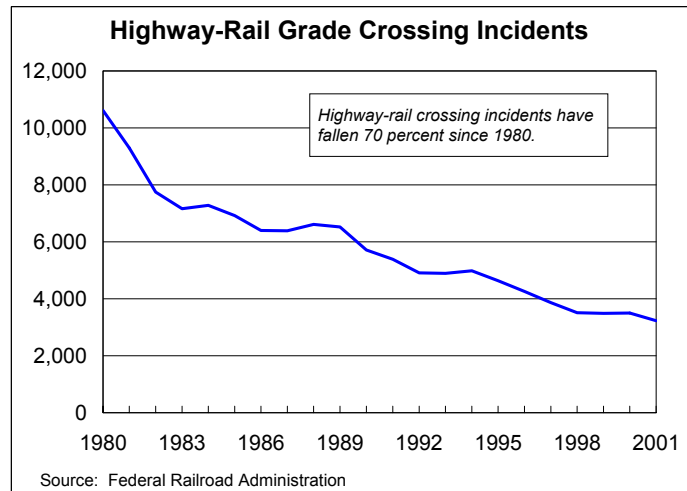
By far the biggest problems, of course, are associated with collisions at crossings, which often involve serious injury or loss of life. In addition to possible bodily injury and property damage, accidents can also involve clean-up costs and costs associated with delays while the accident is investigated and cleared away. We should also remember the forgotten victims of grade crossing accidents: the locomotive engineers, who are usually helpless (and blameless) to prevent an accident but have a front and center view of the tragedy involved and must live forever with its memory.

¹ There were also 1,953 at-grade pedestrian crossings.

Reducing Accidents At Grade Crossings

The number of collisions, injuries, and fatalities at highway-rail grade crossings has fallen steadily over the years. In 1980, there were 10,611 grade crossing collisions resulting in 833 fatalities and 3,890

injuries. By contrast, in 2001 there were 3,232 collisions (down 70 percent) involving 419 fatalities (down 50 percent) and 1,155 injuries (down 70 percent). At the same time that accidents have fallen, exposure — measured by total train-



miles on all railways multiplied by total motor vehicle-miles on all roadways — has risen sharply. Thus, on a per unit of exposure basis, the reduction in grade crossing related incidents and casualties has been even higher.

Nevertheless, the number of grade crossing accidents is still far too high. Perhaps most regrettably, the vast majority of grade crossing accidents are preventable, because they are caused by a driver's proceeding through a crossing in error. Consequently, grade crossing accident prevention efforts have centered on improved warnings and educating the public about the life-or-death consequences of their actions at grade crossings.

Most people probably do not realize that the destructive force of a fast-moving, fully-loaded freight train relative to an automobile is roughly equivalent to the destructive force of that same automobile relative to an empty soda can. In other words, what a car can do to a soda can, a train can do to a car. Drivers need to be made aware of this, which is why education is so important.

An organization that deserves special commendation for its efforts to educate the public about the dangers of grade crossings and trespassing on railroad rights-of-way is Operation Lifesaver. Operation Lifesaver — a non-profit whose mantra is “look, listen, and live” — started in Idaho in 1972 and now has chapters in the 48 contiguous states, Alaska, and the District of Columbia. Each year, Operation Lifesaver’s presenters — many of whom are current or retired rail industry employees — provide free safety presentations to more than two million Americans, including school children, driver's education students, business leaders, truck drivers, and bus drivers. I urge you to raise the level of federal support afforded this important educational organization.

Of course, education alone is not enough to reduce the number of tragic grade crossing accidents. Engineering and enforcement actions are also critical.

Because maximum safety can be realized if crossings are eliminated, the closing of crossings (and, where appropriate, grade separation) is the ultimate engineering improvement. Over the past two decades the number of public at-grade highway-rail crossings has fallen sharply (by 28 percent from 1980-2000), indicating that substantial success in this area has been achieved. But much more can be done. When considered objectively, thousands of existing crossings serve no significant transportation mobility or access purpose. Many of these crossings remain open only because small but vocal local opposition transforms what should be an objective transportation safety decision into an emotional political confrontation.

Indeed, until transportation policy officials are properly authorized to make final decisions on crossing closures, I submit that politics and parochial driving convenience will continue to dominate crossing closure debates. The result will be continued

accidents at crossings that should be closed. To instill more rationality into the system, railroads suggest that a federal crossing closure mandate be established in which state transportation agencies would 1) identify and evaluate candidate crossings for closure using uniform, national crossing closure criteria established by the U.S. Department of Transportation; and, 2) develop and implement a statewide crossing closure plan. If a state refuses to develop or effectively implement its crossing closure plan, the DOT should be authorized to close crossings. Finally, the DOT should develop guidelines states should follow in deciding whether to permit the installation of new grade crossings.

Grade separation can cost well over one million dollars for a single crossing. As such, it is far too expensive for universal application and can usually be justified only at crossings with a very high volume of train or other traffic. Where objective analysis deems it the best option, however, grade separation should be pursued, especially on major railway and roadway routes. The Interstate Highway System, now more than 45,000 miles long, by design has no at-grade highway-rail crossings. Their absence ensures that motor vehicle traffic moves at peak speed and efficiency across the network. Similarly, the 160,000 mile National Highway System (NHS), the backbone of this country's road network, would be much more effective if it too were void of grade crossings. Thus, the elimination or grade separation of the approximately 4,500 highway-rail grade crossings currently on the NHS should be a long-term goal. Likewise, federal guidelines should be adopted which would require the elimination (by separation or closure) of all grade crossings on high speed passenger rail lines.

The characteristics of a crossing determine the appropriate type of warning devices. Factors that help predict the number and severity of accidents at a particular

crossing include highway traffic volumes, train traffic, maximum train speed, number of main tracks, number of highway lanes, and whether the crossing is rural or urban.

Crossings with a higher accident potential call for train-activated warning devices (“active devices”) including gates, flashing lights, bells, or highway signals. Over time, the number of public grade crossings protected by active warning devices has risen from 25 percent of the total (53,790 crossings) in 1980 to 40 percent of the total (62,813 crossings) in 2000. The increase in active warning devices at crossings is almost certainly a major reason for the reduction in the number of accidents over time. Alternately, of course, up-to-date passive devices (*e.g.*, stop signs, crossbucks) can be generally adequate for lightly traveled crossings.

Despite the positive effect of active warning devices, motorist error — including the deliberate violation of traffic laws relating to highway-rail crossings — is a major problem at crossings equipped with active warning devices. It might surprise you to know that in 2000, 47 percent of all highway-rail crossing incidents, and 44 percent of crossing fatalities, occurred at crossings equipped with active warning devices. Motorists too often drive around lowered gates, ignore flashing lights and ringing bells, and proceed through red traffic lights, often with tragic results. An analysis of FRA crossing incident data suggests that over the past 20 years, at least 5,000 lives would have been saved at public highway-rail crossings alone if motorists had done nothing more than obey traffic laws (*i.e.*, stop and wait for the train to pass) when an *active* signal warned them that a train was present or approaching. In addition to disregard for warning devices, common motorist errors include misjudgments of speed and stopping capabilities, misconception of warning signs and signals, and distraction.

The Section 130 Program

Despite the fact that accidents continue to occur at crossings with active warning devices, it is clear that at crossings with higher accident potential, an active warning device can improve safety. However, the high cost of current active warning devices — approximately \$150,000, on average, per installation — has limited the number of crossings at which they have been installed. Research into improved low-cost grade crossing warning systems is underway, but increased federal funding for highway-rail crossing hazard abatement through an expansion of the existing Section 130 program would permit additional crossings to be protected much more quickly with available warning devices.

The ability to use federal funds for improvements to highway-rail crossings has existed since 1917, according to the Federal Highway Administration (FHWA).² Federal funding specifically for crossings was first addressed in 1933 when Congress passed the National Industrial Recovery Act, which authorized \$300 million in state grants to pay for eliminating hazards at grade crossings. More recently, Section 203 of the Highway Safety Act of 1973 (which was later incorporated in Section 130 of the Surface Transportation and Uniform Relocation Assistance Act of 1987 — hence the program's name) provides federal Highway Trust Fund money to states and local governments to eliminate or reduce hazards at highway-rail crossings on public highways. The Section 130 program was retained under TEA-21 as a set-aside under the Surface Transportation Program.

Total annual Section 130 funding today is approximately \$155 million per year, divided by formula among the states. The vast majority of Section 130 funds have been

spent on the installation of new active warning devices such as lights and gates, upgrading existing devices, and replacing or improving grade crossing surfaces.

Without funding dedicated to or earmarked for the Section 130 program, grade crossing needs would likely fare very poorly in competition with more traditional highway needs, such as highway capacity expansion and maintenance. In fact, the primary reason that a separate grade crossing safety improvement program was begun in 1974 was that highway safety, and especially crossing safety, received limited priority for available highway dollars.

The grade crossing improvements paid for with Section 130 funds have directly reduced the number of collisions, deaths, and injuries at highway-rail grade crossings. In fact, using an evaluation process based on changes in the number and severity of accidents at grade crossings where safety improvements were implemented, the FHWA estimated several years ago that the Section 130 program has prevented nearly 10,000 motorist fatalities and 40,000 non-fatal motorist injuries since it was instituted.

Such impressive results and the opportunity for further improvement make it imperative that federal funds continue to be allocated specifically to highway-rail grade crossing projects, and, indeed, that the Section 130 program be expanded. Increasing Section 130 funding, and clarifying that such funds can be spent on grade crossing maintenance projects, would allow additional crossings to be protected and further enhance highway safety.

An expansion of the Section 130 program would not be a “raid” on highway funds, for the simple reason that grade crossing warning devices are *highway* traffic

² *Railroad-Highway Grade Crossing Handbook*, Second Edition, FHWA-TS-86-215, September 1986.

control devices, there to protect motor vehicles, not trains. (Warning devices are generally not even visible to a locomotive engineer.) Indeed, it has long been recognized authoritatively that highway-rail grade crossings, by their very nature, are primarily motorists' responsibilities.

For example, in 1935, the U.S. Supreme Court (in *Nashville, C. & St. L. Ry. v. Walters*) issued a landmark decision on the topic of grade crossings. Writing for the majority, Justice Brandeis wrote, "The railroad has ceased to be the prime instrument of danger and the main cause of [grade crossing] accidents. It is the railroad which now requires protection from dangers incident to motor transportation."

In the early 1960s, the Interstate Commerce Commission conducted a comprehensive investigation of public safety at highway-rail grade crossings. The Commission's report³, issued on January 22, 1964, contains a number of instructive observations, including the following:

"It is inescapable from a review of the facts developed in this proceeding that the only realistic conclusion that can be reached is that most of the rail-crossing accidents are caused by human failure arising from noncompliance by the drivers with the applicable Commission regulations or the State laws and regulations.

...One of the basic elements to be considered in this proceeding is the cost of upgrading crossings and the installation of additional grade-crossing protection, and upon whom the cost burden should fall. For practical reasons this cost should be borne by public funds as users of the crossing plus the fact that it is the increasing highway traffic that is the controlling element in accident exposure at these crossings....Insofar as this record is concerned, the consensus supports a conclusion that the major costs of grade separation and protection at rail-highway grade crossings should be borne by the public since the public is the principal recipient of the benefits derived from grade-crossing protection.

³ "Prevention of Rail-Highway Grade-Crossing Accidents Involving Railway Trains and Motor Vehicles," 322 I.C.C., pp. 1-92, decided January 22, 1964.

...In the past it was the railroad's responsibility for protection of the public at grade crossings. This responsibility has now shifted. Now it is the highway, not the railroad, and the motor vehicle, not the train which creates the hazard and must be primarily responsible for its removal. Railroads were in operation before the problem presented itself and if the increasing seriousness is a result of the increasing development of highways for public use, why should not the cost of grade-crossing protection be assessed to the public."

The FHWA's own regulations today stipulate that "projects for grade crossing improvements are deemed to be of no ascertainable net benefit to railroads and there shall be no required railroad share of the costs."⁴

Notwithstanding this DOT finding, railroads currently spend more than \$200 million per year on grade crossing maintenance. That is why the AAR believes it appropriate to make it explicit that payment of maintenance expenses is a reimbursable cost under the Section 130 program.

Comprehensive Highway-Rail Crossing Safety Agenda

In addition to increasing funding for the Section 130 grade crossing program and clarifying that funds can be spent on crossing maintenance activities, railroads support a comprehensive agenda of engineering, education, and enforcement actions that would further improve grade crossing safety. We respectfully suggest that Congress and the federal government should strongly consider the adoption and implementation of the following set of grade crossing safety and trespasser prevention initiatives, a few of which I have mentioned earlier:

- Adopt a uniform national grade crossing consolidation process, combined with a freeze on the overall number of grade crossings within each state.
- Require the adoption of highway design standards that ultimately eliminate grade crossings on the National Highway System (NHS).

⁴ See Code of Federal Regulations, Title 23, Chapter 1, Section 646.210.

- Consistent with a recent Transportation Research Board report, decide on a uniform set of traffic control devices for use at passive crossings nationwide and fund their installation.
- Redefine “private grade crossings” in such a manner that all crossings that are routinely accessible to the general public are eligible for Section 130 funding.
- Fund a research and development program to design effective low-cost active warning systems for grade crossings, and continue evaluations of the effectiveness of more advanced warning device systems such as four quadrant gates.
- Require a minimum set-back or physical safety barrier between active railroad tracks and adjacent parallel trails, paths, and other recreational uses.
- Enhance the enforcement of grade crossing safety traffic laws by requiring the inclusion of grade crossing safety as a standard component of commercial driver’s license educational curriculum and testing; maintaining tough grade crossing traffic violation penalties for commercial drivers (*e.g.*, drivers of buses, vehicles carrying hazardous materials, logging trucks, heavy equipment, and special permit trucks); promoting the increased use of photo enforcement technology at grade crossings by providing appropriate incentives; and retaining full-time FRA enforcement liaison officers in each of the agency’s eight regions.
- Strongly discourage the promotion of illegal activity (*e.g.*, trespassing and vandalism) on railroad property.
- Fund a national Operation Lifesaver grade crossing safety campaign, including television and radio public service announcements.

Thank you for the opportunity to testify today. The rail industry is committed to working closely and cooperatively with Congress, individual states, the FRA, and others to reduce the frequency of accidents at highway-rail crossings.